

# Appendix I:

## Definitions and sources

Group	Indicator	Description	Numerator	Denominator	Source
Deprivation	South African Index of Multiple Deprivation Rank (1=most deprived)	Rank order of composite index of deprivation. The index is composed of indicators covering the domains of material, employment, education and living environment deprivation.			Southern African Social Policy Research Institute (SASPRI) - based on data from Stats SA Census 2011.
Socio-demographic	Medical scheme coverage (average)	Percentage of population who have medical scheme insurance.			Modelled from Stats SA GHS
Finance	Provincial and Local Government expenditure on District Health Services per capita (uninsured)	Total amount spent on Primary Health Care (PHC) (district health services) per person without medical scheme coverage.	Provincial expenditure on District Health Services ((excluding 2.8 Coroner)) plus net local government expenditure on PHC	Uninsured population (total population less medical scheme coverage x population)	Calculated from BAS, NW financial data, Treasury data on LG expenditure, DHIS population and Stats SA GHS medical scheme coverage
	Provincial PHC expenditure per capita (uninsured)	Total amount spent on non-hospital PHC health services per person without medical scheme coverage.	Provincial expenditure on PR2.2-2.7 of DHS + net LG expenditure	Uninsured population (total population less medical scheme coverage x population)	Calculated from BAS, NW financial data, Treasury data on LG expenditure, DHIS population and Stats SA GHS medical scheme coverage
	Provincial and Local Government expenditure on District Health Services per capita (total pop)	Provincial expenditure on District Health Services (all sub-programmes except 2.8 Coroner services) plus net local government expenditure on PHC per total population.	Provincial expenditure on District Health Services ((excluding 2.8 Coroner)) plus net local government expenditure on PHC	Total population	Calculated from BAS, NW financial data, Treasury data on LG expenditure and DHIS population
	Provincial PHC expenditure per capita (total pop)	Provincial expenditure on sub-programmes of DHS (2.2 - 2.7) plus net local government expenditure on PHC per total population.	Provincial expenditure on PR2.2-2.7 of DHS + net LG expenditure	Total population	Calculated from BAS, NW financial data, Treasury data on LG expenditure and DHIS population
	Provincial expenditure per PHC headcount	Total amount spent on non-hospital PHC health services per headcount.	Provincial expenditure on PR2.2-2.7 of DHS + net LG expenditure	Total PHC headcount	BAS, DHIS PHC headcount
	Percentage of district health services expenditure on district management	Percentage of total provincial district health services expenditure on district management.	Provincial expenditure on district management	Total provincial expenditure on District Health Services	BAS
	Percentage of district health services expenditure on district hospitals	Percentage of total provincial district health services expenditure on district hospitals.	Provincial expenditure on district hospitals	Total provincial expenditure on District Health Services	BAS
	Percentage of district health services expenditure on PHC	Total amount spent on non-hospital PHC health services.	Provincial expenditure on PHC (PR2.2-2.7)	Total provincial expenditure on District Health Services	BAS

Group	Indicator	Description	Numerator	Denominator	Source
PHC Management	PHC supervisor visit rate	Proportion fixed clinics, CHCs and CDCs visited by a dedicated supervisor according to the PHC Supervision Manual.	PHC supervisor visit (fixed clinic/CHC/CDC)	Fixed clinics plus fixed CHCs/CDCs	DHIS NDoH5
	Average length of stay (district hospitals)	Average number of patient days that an admitted patient spends in hospital before separation.	Inpatient days + 1/2 day patients	Separations – Discharges (including day patients) + Deaths + Transfers out	DHIS NDoH5 (data for district hospitals only)
Management	Inpatient bed utilisation rate (district hospitals)	Number of patient days during the reporting period, expressed as a percentage of the sum of the daily number of useable beds. (Comment: The calculation here is an approximation - it assumes (1) a day patient occupies a bed for half a day, (2) there are always 30 days in a month.	Total patient days - (Inpatient days + 1/2 Day patients) x 100	Total useable bed days (Inpatient beds - total) X 30.42	DHIS NDoH5 (data for district hospitals only)
	Expenditure per Patient Day Equivalent (district hospitals)	Average cost per patient per day seen in a hospital (expressed as Rand per patient day equivalent).	Total expenditure on health per hospital	Patient day equivalent - total	BAS, NW financial data, DHIS (PDE) (data for district hospitals only)
Delivery	OPD new client not referred rate (district hospitals)	Proportion of new OPD clients without a referral letter.	OPD headcount not referred new	OPD new clients - total	DHIS NDoH5 (data for district hospitals only)
	Delivery in facility under 18 years rate	Deliveries to women under the age of 18 years as proportion of total deliveries in health facilities.	Delivery in facility to woman under 18 years	Delivery in facility total	DHIS NDoH5
	Delivery by Caesarean section rate (district hospitals)	Delivery by Caesarean section as proportion of total deliveries in health facilities.	Delivery by Caesarean section	Delivery in facility total	DHIS NDoH5 (data for district hospitals only)
	Stillbirth rate in facility	Number of stillbirths, per 1 000 total births.	Number of stillbirths	Total number of births	DHIS NDoH5
	Inpatient early neonatal death rate	Number of inpatient deaths within the first 7 days of life per 1 000 live births.	Early neonatal deaths	Live births in facility	DHIS NDoH5
	Maternal mortality ratio institutional	Women who die as a result of childbearing, during pregnancy or within 42 days of delivery or termination of pregnancy, per 100 000 live births, and where the death occurs in a health facility.	Maternal deaths in facility registered with NCCEMD	Live births denominator from DHIS	National Committee for Confidential Enquiries into Maternal Deaths (NCCEMD)
PMTCT	Maternal mortality in facility ratio	Women who died in hospital as a result of childbearing, during pregnancy or within 42 days of delivery or termination of pregnancy, per 100 000 live births in facility.	Maternal deaths in facility	Live births in facility	DHIS NDoH5
	Antenatal 1st visits before 20 weeks rate	Women who have a booking visit (first visit) before they are 20 weeks into their pregnancy as proportion of all antenatal 1st visits.	Antenatal 1st visits before 20 weeks	Antenatal 1st visits	DHIS NDoH5
	HIV prevalence among antenatal clients tested (survey)	Proportion of antenatal clients surveyed who test positive for HIV.	-	-	Antenatal Survey
	Antenatal client initiated on ART rate	Antenatal clients on ART as a proportion of the total number of antenatal clients who are HIV positive and not previously on ART.	Antenatal clients initiated on ART	Antenatal clients eligible for ART	DHIS NDoH5
	Early infant diagnosis coverage	Proportion of infants born to HIV-positive mothers who receive a PCR test before 2 months of age.	Number of PCR tests done in infants under 2 months	Estimated number of infants born to HIV-positive women	NHLS, Antenatal Survey, Stats SA live births <sup>a</sup>
	Percentage of PCR tests HIV positive for infants under two months of age	Percentage of PCR tests that are positive for HIV (in infants under 2 months).	PCR tests positive for infants under 2 months	Number of PCR tests done in infants under 2 months	NHLS

<sup>a</sup> Calculation now uses Stats SA data for live births for denominator instead of DHIS data on live births in facilities. This change was applied retrospectively to the data for all years.

Group	Indicator	Description	Numerator	Denominator	Source
Immunisation	Immunisation coverage under 1 year	Percentage of all children in the target area under one year who complete their primary course of immunisation. A Primary Course includes BCG, OPV 1, 2 & 3, DTP-Hib 1, 2 & 3, HepB 1, 2 & 3, and 1st measles (usually at 9 months).	Children fully immunised under 1 year	Target population under 1 year	DHIS NDoH5
	DTaP-IPV/Hib 3 - Measles 1st dose drop-out rate	Proportion children who dropped out of the immunisation schedule between DTaP-IPV/ Hib 3rd dose, normally at 14 weeks and measles 1st dose, normally at 9 months.	DTaP-IPV/Hib 3rd dose - Measles 1st dose under 1 year	DTaP-IPV/Hib 3rd dose	DHIS NDoH5
	Child under 5 years diarrhoea with dehydration incidence	Children under 5 years newly diagnosed with diarrhoea with dehydration per 1 000 children under 5 years in the population.	Child under 5 years diarrhoea with dehydration new	Population under 5 years	DHIS NDoH5
	Child under 5 years diarrhoea case fatality rate	Proportion of children under 5 years admitted with diarrhoea who died.	Child under 5 years with diarrhoea death	Child under 5 years with diarrhoea admitted	DHIS NDoH5
	Child under 5 years pneumonia incidence	Children under 5 years newly diagnosed with pneumonia per 1 000 children under 5 years in the population.	Child under 5 years with pneumonia new	Population under 5 years	DHIS NDoH5
	Child under 5 years pneumonia case fatality rate	Proportion of children under 5 years admitted with pneumonia who died.	Child under 5 years pneumonia death	Child under 5 years pneumonia admitted	DHIS NDoH5
	Child under 5 years severe acute malnutrition incidence	Children under 5 years newly diagnosed with severe acute malnutrition per 1 000 children under 5 years in the population.	Child under 5 years with severe acute malnutrition new	Population under 5 years	DHIS NDoH5
	Child under 5 years severe acute malnutrition case fatality rate	Proportion of children under 5 years admitted with severe acute malnutrition who died.	Child under 5 years severe acute malnutrition death	Child under 5 years severe acute malnutrition admitted	DHIS NDoH5
	Vitamin A coverage 12 to 59 months	Proportion of children 12-59 months who received vitamin A 200 000 units, preferably every six months. The denominator is therefore the target population 1-4 years multiplied by 2.	Vitamin A dose to children 12-59 months children	Population 12-59 months multiplied by 2	DHIS NDoH5
	Couple year protection rate	Women protected against pregnancy by using modern contraceptive methods, including sterilisations, as proportion of female population 15-44 years. Contraceptive years are the total of (Oral pill cycles / 13) + (Medroxyprogesterone injection / 4) + (Norethisterone enanthate injection / 6) + (IUCD x 4) + (Male condoms distributed / 200) + (Male sterilisation x 20) + (Female sterilisation x 10).	Contraceptive years dispensed (including sterilisations)	Female target population 15-44 years	DHIS NDoH5
Reproductive Health	Cervical cancer screening coverage	Cervical smears in women 30 years and older as a proportion of 10% of the female population 30 years and older.	Cervical cancer screening in women 30 years and older	10 percent of female target population 30 years and older	DHIS NDoH5

Group	Indicator	Description	Numerator	Denominator	Source
TB	TB cases	Number of TB cases reported (all TB)	Number of TB cases recorded in ETR.Net	-	NDoH TB Directorate
	TB (pulmonary) case finding index	Proportion of clients 5 years and older, who were identified as TB suspects and for whom sputum was sent to the laboratory	TB suspect 5 years and older sputum sent	PHC headcount 5 years and older	DHIS NDoH5
	TB incidence (all types)	TB cases diagnosed (all TB) per 100 000 people in the catchment population	Number of diagnosed TB patients (all TB) starting treatment in the period	Total population	NDoH TB Directorate
	TB incidence (new pulmonary smear positive)	New TB cases diagnosed (pulmonary smear-positive ) per 100 000 people in the catchment population	Number of diagnosed TB patients (new pulmonary sm+) starting treatment in the period	Total population	NDoH TB Directorate
	TB cure rate (new pulmonary smear positive)	Proportion of new smear-positive PTB patients who completed treatment and were proven to be cured (which means that they had two negative smears on separate occasions at least 30 days apart)	Number of initially smear-positive PTB patients who converted to negative smears at two or three months after starting treatment	Total number of new PTB smear-positive cases started on treatment during the specified time.	NDoH TB Directorate
	TB successful treatment rate (all TB)	Proportion TB clients (ALL types of TB) cured plus those who completed treatment	TB client cured OR completed treatment	TB (new pulmonary) client initiated on treatment	NDoH TB Directorate
	TB defaulter rate (new pulmonary smear positive)	Proportion of new smear-positive PTB patients who default on treatment	Number of initially smear-positive PTB patients who default on treatment	Total number of new PTB smear-positive cases started on treatment during the specified time.	NDoH TB Directorate
	TB Rifampicin resistance confirmed client rate	Percentage of positive TB tests that are RIF resistant	Number of TB tests RIF resistant	Number of TB tests with Mycobacterium TB detected	NHLS (based only on tests done using GeneXpert technology)
	Male condom distribution coverage	Number of male condoms distributed to clients via the facility or via factories, offices, restaurants, NGOs or other outlets - per male 15 years and older	Male condoms distributed	Male population 15 years and older	DHIS NDoH5
	Adult remaining on ART at end of the month - total	Adults remaining on ART total	Adults remaining on ART - total	-	DHIS NDoH5
	Children under 15 years remaining on ART at end of the month - total	Children remaining on ART total	Children remaining on ART - total	-	DHIS NDoH5
	HIV testing coverage	Clients HIV tested as proportion of population 15-49 years	HIV test client 15-49 years	Population 15-49 years	DHIS NDoH5
	TB/HIV co-infected client initiated on ART rate	Proportion of TB/HIV co-infected clients initiated on ART	HIV/TB co-infected client started on ART	HIV/TB co-infected client total	DHIS NDoH5
TB/HIV co-infected client on ART rate (ETR.net)	HIV-positive TB cases who are on ART	HIV-positive TB cases who are on ART	HIV-positive TB cases	NDoH TB Directorate	
Percentage of TB cases with known HIV status (ETR.net)	Percentage of TB cases with known HIV status	TB cases with known HIV status	TB cases	NDoH TB Directorate	
HIV and AIDS					

Group	Indicator	Description	Numerator	Denominator	Source
Burden of Disease	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes	Percentage of YLLs due to communicable, maternal, perinatal, nutrition causes	Number of YLLs due to communicable, maternal, perinatal, nutrition causes	Total number of YLLs	Stats SA
	Percentage of deaths garbage codes	Percentage of deaths garbage codes	Number of garbage code deaths	Total number of YLLs	Stats SA
	Percentage of Years of Life Lost (YLL) due to HIV and TB	Percentage of Years of Life Lost (YLL) due to HIV and TB	Number of YLLs due to HIV and TB	Total number of YLLs	Stats SA
	Percentage of deaths ill-defined	Percentage of deaths ill-defined	Number of ill-defined deaths	Total number of deaths	Stats SA
	Percentage of Years of Life Lost (YLL) due to injuries	Percentage of Years of Life Lost (YLL) due to injuries	Number of YLLs due to injuries	Total number of YLLs	Stats SA
	Percentage of Years of Life Lost (YLL) due to non-communicable diseases	Percentage of Years of Life Lost (YLL) due to non-communicable diseases	Number of YLLs due to non-communicable diseases	Total number of YLLs	Stats SA
	Percentage of deaths due to communicable, maternal, perinatal or nutritional conditions	Percentage of deaths due to communicable, maternal, perinatal or nutritional conditions	Number of deaths due to Communicable diseases / Maternal conditions	Total number of deaths	Stats SA
	Percentage of deaths due to HIV or TB	Percentage of deaths due to HIV or TB	Number of deaths due to HIV or TB	Total number of deaths	Stats SA
	Percentage of deaths due to injuries	Percentage of deaths due to injuries	Number of deaths due to injuries	Total number of deaths	Stats SA
	Percentage of deaths due to non-communicable diseases	Percentage of deaths due to non-communicable diseases	Number of deaths due to NCDs	Total number of deaths	Stats SA



# HEALTH SYSTEMS TRUST

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